



Congressional Budget Office

Testimony

**Statement of
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Director**

Trends in Federal Tax Revenues and Rates

**before the
Committee on Finance
United States Senate**

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Notes and Definitions

Numbers in the exhibits and text may not add up to totals because of rounding. Unless otherwise indicated, all years referred to are calendar years.

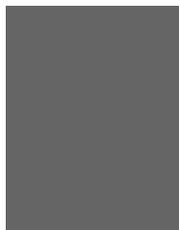
The Congressional Budget Office's (CBO's) analysis of average tax rates draws information on income and taxes from two primary sources: the Statistics of Income, a nationally representative sample of tax returns compiled by the Internal Revenue Service, and the annual Demographic and Economic Supplement to the Census Bureau's Current Population Survey. CBO calculates income and estimates federal taxes for each household in the sample in each year on the basis of income, demographic characteristics, and existing laws in the relevant year.

Average tax rates are calculated by dividing taxes by comprehensive household income. A negative average income tax rate results when refundable tax credits, such as the earned income and child tax credits, are greater than the income taxes owed by people in that group. (Refundable tax credits are not limited to the amount of income tax owed before they are applied.)

Comprehensive household income equals before-tax cash income plus income from other sources. Before-tax cash income includes labor income (wages, salaries, and self-employment income), capital income (rents, taxable and nontaxable interest, dividends, and realized capital gains), cash transfer payments (Social Security retirement and disability benefits, unemployment insurance benefits, and cash assistance for low-income families), and retirement benefits; it also includes taxes paid by businesses (corporate income taxes and the employer's share of Social Security, Medicare, and federal unemployment insurance payroll taxes) and in-kind benefits (Medicare and Medicaid benefits, employer-paid health insurance premiums, nutrition assistance, school lunches and breakfasts, housing assistance, and energy assistance).

Income categories are defined by ranking all people by their comprehensive household income adjusted for household size—in particular, by dividing income by the square root of the household's size. (A household consists of the people who share a housing unit, regardless of their relationships.) Quintiles, or fifths, contain equal numbers of people. Households with negative income are excluded from the lowest income category but are included in totals.

In assessing the impact of various taxes, individual income taxes are allocated directly to households paying those taxes. Social insurance, or payroll, taxes are allocated to households paying those taxes directly or paying them indirectly through their employers. Corporate income taxes are allocated to households according to their share of capital income. Federal excise taxes are allocated to households according to their consumption of the taxed good or service.



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Trends in Federal Tax Revenues and Rates

Chairman Baucus, Senator Grassley, and Members of the Committee, thank you for the invitation to testify on historical trends in income and revenues. My testimony addresses revenues collected by the federal government, how taxes affect economic activity, and the tax burden and who bears it. Other elements of the current tax system—such as its complexity and the resulting costs of compliance—are also important but are not addressed here.

Federal Revenues: Trends and Projections

Over the past 40 years, federal revenues have ranged from nearly 21 percent of gross domestic product (GDP) in fiscal year 2000 to less than 15 percent in fiscal years 2009 and 2010, averaging 18 percent of GDP over that span. Most of the revenues—about 82 percent in 2010—come from the individual income tax and the payroll taxes used to finance Social Security, Medicare, and the federal unemployment insurance program. Other sources of revenues include corporate income taxes, excise taxes, estate and gift taxes—all together about 13 percent of revenues in 2010—and nontax revenues such as earnings of the Federal Reserve System, customs duties, fines, and various fees. Variation in individual income tax receipts, stemming from both policy changes and economic developments, has generated the largest fluctuations in revenues as a percentage of GDP.

Under current law, revenues will rise significantly from their recent low relative to GDP as the economy recovers from the recession and the tax reductions enacted in 2001, 2003, and 2009 expire. The Congressional Budget Office (CBO) projects that under current law, federal revenues will reach 21 percent of GDP in fiscal year 2020, just above their peak share of 10 years ago.

CBO also projects that under current law, federal spending will decline for a few years relative to GDP and then increase again, reaching nearly 24 percent in 2020—slightly lower than the peak level of almost 25 percent in fiscal year 2009 but well above the average of roughly 21 percent over the past four decades. Compared with that historical experience, the components of federal spending that are projected, under current law, to be unusually large relative to GDP by 2020 are the expenditures for Social Security and the federal health programs (including spending for Medicare, Medicaid, and the subsidies to be provided in the new insurance exchanges); other nondefense spending is projected to roughly equal its historical share of GDP, and defense spending is projected to be a smaller share of GDP.

As a result, even with the projected substantial increase in revenues, under current law deficits between 2015 and 2020 will range between 2.6 percent and 3.0 percent of GDP. If lawmakers extended most or all of the 2001 and 2003 tax cuts and made no other changes to taxes and spending,

revenues would be lower and deficits would be significantly larger.

How Taxes Affect Economic Activity: Marginal Tax Rates and Tax Expenditures

Taxes have an effect on the economy in addition to the revenues collected because they cause people to alter their economic behavior, which generally results in a less efficient allocation of resources. Taxpayers can respond in three general ways to taxes: They can change the timing of their activities, for example by accelerating bonus payments or the sale of assets into this year if they think tax rates on earnings or capital gains will increase next year; they can adjust the form of their activities, for example by substituting tax-preferred fringe benefits for cash wages if the tax rate on wages increases; or they can change more fundamental aspects of their behavior, for example by working or saving less if tax rates on earnings or capital income increase.

The crucial point is that taxes raise the price of taxed activities and thereby lower the relative price of other things. In particular, the income tax reduces the returns from working (the after-tax wage), which lowers the price of other activities relative to working; it also reduces the returns from saving (the after-tax rate of return), which lowers the price of current spending relative to saving for spending in the future.

One measure of the effect of taxes on the returns from working and saving is the marginal tax rate—the tax paid per dollar of extra earnings or dollar of extra income from savings. The highest marginal income tax rate (the tax rate that applies to the top income tax bracket) was 91 percent in the late 1950s and early 1960s and as high as 70 percent as recently as 1980, although a lower maximum rate applied to earnings in that year. Since 1988, the highest marginal income tax rate has ranged from 28 percent to 39.6 percent. For a representative family of four with median income, the marginal tax rate on earnings (combining the rates for both income and payroll taxes) during the period from 1955 to 1975 was around 20 percent. That rate climbed over the next 10 years as a result of rising payroll tax rates and inflation-driven increases in nominal incomes, which pushed median-income families into higher tax brackets. Following a reduction in income tax rates in 1986, the marginal tax rate for a representative median-income family has remained at about 30 percent.

Changes in marginal tax rates have two different types of effects on people. The lower that tax rates are, the more people can keep of the returns from additional work or saving, thus boosting people's incentives to work and save. But lower rates also have a countervailing effect: By raising after-tax income, they make it easier for people to attain their consumption goals with a given amount of work or savings, thus possibly causing people to work and save less. On balance, the evidence suggests that reducing tax rates boosts work and saving relative to what would occur otherwise, if budget deficits are held the same. But without any other changes in taxes or spending, reducing tax rates

from current levels will generally lower revenues and increase budget deficits. Increased deficits, even with lower tax rates, can reduce economic activity over the longer term.

Provisions of the tax code can also affect economic activity by subsidizing certain types of expenditures. Until recently, most federal support for homeownership was provided through the tax code in the form of tax expenditures, which are revenues that are forgone because of special exclusions, exemptions or deductions from gross income, special credits, preferential tax rates, or deferrals of tax liabilities aimed at subsidizing certain activities. The largest and most widely used tax expenditure in the housing area is the deduction from taxable income for mortgage interest on owner-occupied homes, which results in an estimated \$573 billion in forgone revenues from 2009 to 2013. That deduction encourages homeowners to buy homes and to take out larger mortgages than they might otherwise be able to afford, resulting in higher household debt, higher home prices in areas where the supply of housing is fixed, and less investment in other assets.

Another substantial tax expenditure is the exclusion of employers' contributions for health insurance premiums from income and payroll taxes. That exclusion encourages employers to offer health insurance to their workers and to pay their workers a larger share of their compensation in that form; the resulting higher levels of insurance increase demand for health care services. Tax expenditures have helped to accomplish various goals, but because they reduce the base to which taxes apply, tax rates must be higher to collect the

same amount of revenues that would be collected in the absence of those subsidies.

The Tax Burden and Who Bears It

Households generally bear the economic cost, or burden, of the taxes that they pay directly, such as individual income taxes (including taxes paid on dividends, interest, and capital gains) and employees' share of payroll taxes. Households also bear the burden of the taxes paid by businesses. In particular, in CBO's judgment (and that of most economists), employers' share of payroll taxes is passed on to employees in the form of lower wages. In addition, households bear the burden of corporate income taxes, but the extent to which they bear that burden as owners of capital, workers, or consumers is not clear.

One measure of the tax burden is the average tax rate—that is, the taxes paid as a share of income. Federal taxes are progressive: Average federal tax rates generally rise with income. In 2007, households in the bottom fifth, or quintile, of the income distribution (with average income of \$18,400, under a broad definition of income) paid about 4 percent of their income in federal taxes, while the middle quintile, with average income of \$64,500, paid 14 percent, and the highest quintile, with average income of \$264,700, paid 25 percent.

The largest source of federal revenues, the individual income tax, has average tax rates that rise rapidly with income. The next largest source of revenues, social insurance taxes, has average tax rates that vary little across most income groups—

although the average rate falls for higher-income households, because earnings above a certain threshold are not subject to the Social Security payroll tax and because earnings are a smaller portion of total income for that group. The average social insurance tax rate is higher than the average individual income tax rate for all income groups except the highest quintile.

Between 1979 and 2007, the average tax rate for federal taxes combined declined for all income groups. The average individual income tax rate also declined over those years; the largest decrease occurred for the fifth of the population with the lowest income. (That decline in average tax rates is based on a comparison of rates for different income groups at different points in time but does not reflect the experience of particular households, which may move up or down the income scale over time.)

The share of taxes paid by the top fifth of the population grew sharply between 1979 and 2007. Almost all of that growth can be attributed to an increase in that group's share of before-tax income. In 2007, households in the highest quintile earned 55 percent of before-tax income and paid almost 70 percent of federal taxes; for all other quintiles, the share of federal taxes was less than the share of income.

Related CBO Analyses

Further information about many of these issues is available in other CBO publications:

- Trends and projections of federal revenues are discussed in *The Budget and Economic Outlook: An Update* (August 2010); and *Sources of the Growth and Decline in Individual Income Tax Revenues Since 1994* (May 2008).
- Analyses of the effects of tax policy options on economic activity are discussed in Statement of Douglas W. Elmendorf, Director, Congressional Budget Office, before the Senate Committee on the Budget, *The Economic Outlook and Fiscal Policy Choices* (September 28, 2010); *An Analysis of the President's Budgetary Proposals for Fiscal Year 2011* (March 2010); and *Analyzing the Economic and Budgetary Effects of a 10 Percent Cut in Income Tax Rates* (December 2005).
- The effects of tax rates on economic activity are examined in *The Effect of Tax Changes on Labor Supply in CBO's Microsimulation Tax Model*, Background Paper (April 2007); *Computing Effective Tax Rates on Capital Income*, Background Paper (December 2006); *Effective Marginal Tax Rates on Labor Income* (November 2005); and *Taxing Capital Income: Effective Rates and Approaches to Reform* (October 2005).
- Subsidies to expenditures through the tax code are discussed in *An Overview of Federal Support for Housing*, Issue Brief (November 3, 2009); *Key Issues in Analyzing Major Health Insurance Proposals* (December 2008), pp. 29–37; *The Deductibility of State and Local Taxes* (February 2008); and Statement of Peter R. Orszag, Director, Congressional Budget Office, before the House Committee on the Budget, *Performance Budgeting: Applications to Health Insurance Programs and Tax Policy* (September 20, 2007).
- Supplemental analyses and detailed data on average federal tax rates and income, by income category, for 1979 to 2007, are available at www.cbo.gov/publications/collections/collections.cfm?collect=13.
- Issues involving tax rates and how household income changes over time are discussed in *Effective Tax Rates: Comparing Annual and Multiyear Measures* (January 2005). ♦



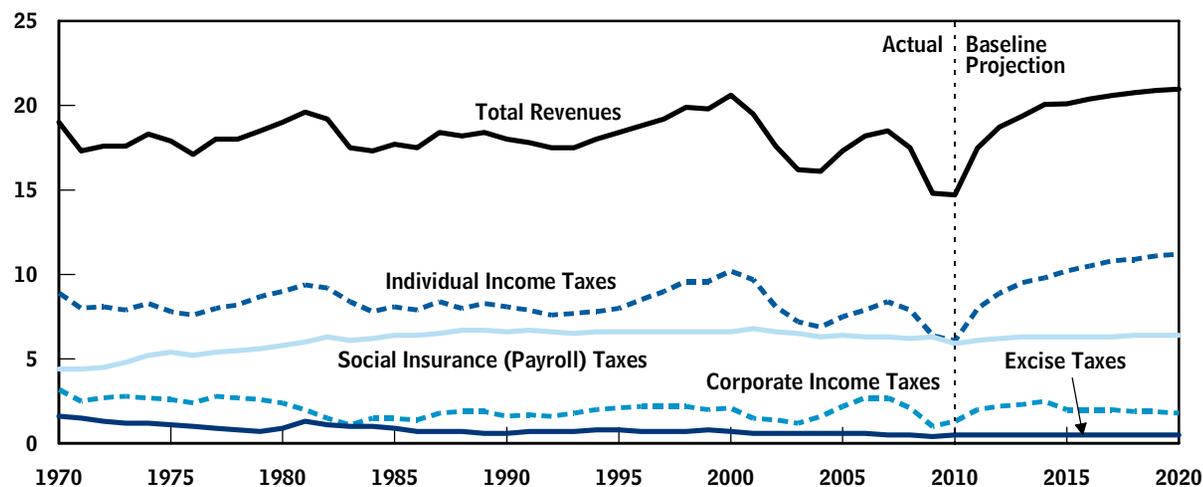
Federal Revenues: Trends and Projections



Exhibit 1.

Revenues, by Source, Fiscal Years 1970 to 2020

(Percentage of gross domestic product)



Source: Congressional Budget Office.

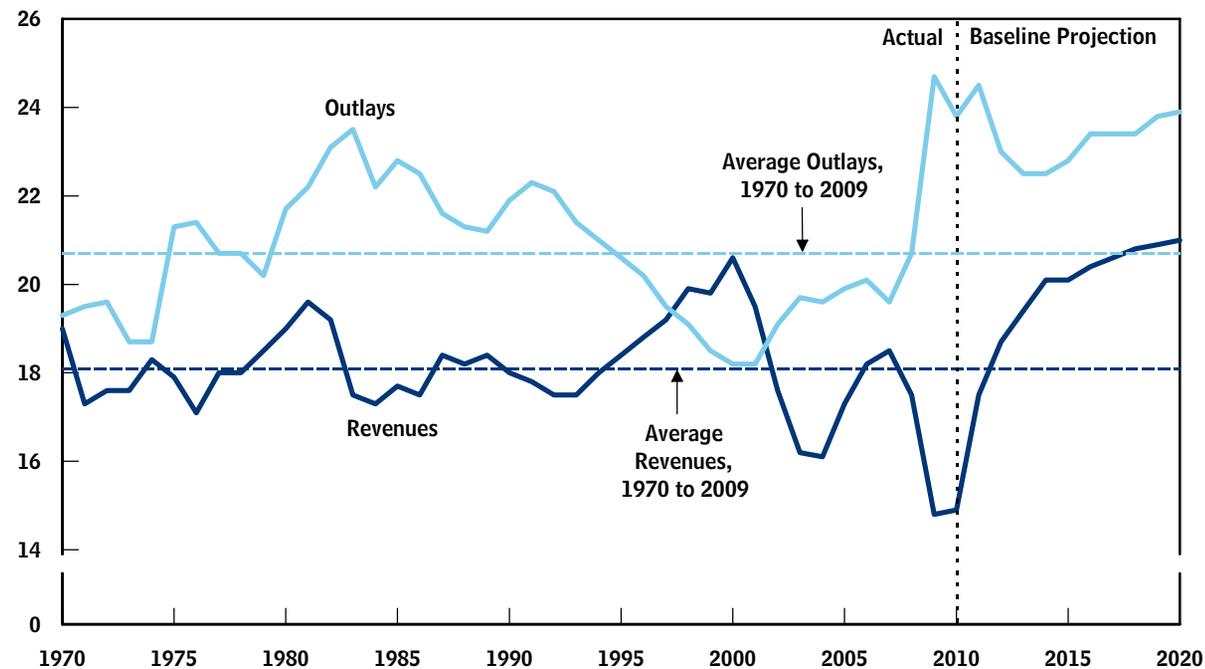
Total federal revenues have varied in relation to gross domestic product (GDP) over time, although they show no evident trend during the past 40 years. Over that span, federal revenues have ranged from less than 15 percent of GDP in fiscal years 2009 and 2010 to nearly 21 percent in fiscal year 2000 and have averaged 18 percent. The variations stem primarily from changes in receipts from the individual income tax related to both policy changes and economic developments. Over the past 40 years, revenues from payroll taxes have increased relative to GDP, reaching a peak of 7 percent of GDP in 2001 before declining to about 6 percent by 2010. Revenues from the corporate income tax and excise taxes have decreased relative to GDP since 1970.

Revenues as a percentage of GDP change over time because the size of the tax base for each source changes relative to GDP, because changes in the distribution of income can raise or lower average tax rates, and because changes in tax law affect the amount of revenues collected from a particular tax base. For example, the increase in revenues from social insurance taxes, measured as a share of GDP, between 1970 and 1990 primarily reflected legislated increases in Social Security and Medicare payroll tax rates as well as increases in the maximum earnings subject to tax. In contrast, much of the increase in revenues from the individual income tax between 1994 and 2000 occurred because the tax base was growing faster than GDP over that period (in part because a rising stock market increased the amount of taxable capital gains). ♦

Exhibit 2.

Total Revenues and Outlays, Fiscal Years 1970 to 2020

(Percentage of gross domestic product)



Source: Congressional Budget Office.

Looking ahead over the next decade, CBO estimates that under current law, revenues will rise significantly relative to GDP, reaching 21 percent in 2020—slightly above the previous peak in 2000. That increase is attributable in part to the anticipated economic recovery and in part to the scheduled expiration of tax provisions originally enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001, the Jobs and Growth Tax Relief Reconciliation Act of 2003, and the American Recovery and Reinvestment Act of 2009 (including temporary relief from the alternative minimum tax, which has since expired). Revenues will also be boosted by provisions of the health care legislation enacted last spring (the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010), which are estimated to increase receipts by growing amounts over the next few years. In addition, the structure of the individual income tax will lead to gradual increases in receipts over time. As a result, under current law, revenues over the next decade are projected to be substantially higher than their average from 1970 to 2009.

However, under current law, spending over the next decade is also projected to be considerably higher than its average from 1970 to 2009. Even with the increase in revenues projected under current law, deficits are projected to range between 2.6 percent and 3.0 percent of GDP from 2015 to 2020, close to the average of 2.6 percent of GDP experienced over the past four decades. ♦

Exhibit 3.**Estimates of Revenues Under Current Law and Four Tax Policy Options in Fiscal Years 2011, 2012, and 2020**

(Percentage of gross domestic product)

	2011	2012	2020
Percentage of Gross Domestic Product			
Revenues Under Current Law	17.5	18.7	21.0
Percentage-Point Change from Current Law			
Full Extension, Permanent ^a	-1.2	-1.7	-2.1
Partial Extension, Permanent ^b	-0.9	-1.4	-1.6
Full Extension, Through 2012 ^c	-1.2	-1.7	*
Partial Extension, Through 2012 ^d	-0.9	-1.4	*

Source: Congressional Budget Office based on preliminary information provided by the staff of the Joint Committee on Taxation.

Notes: Effects are estimated as revenues with the policy in effect minus revenues without the policy.

The estimates include the effects of increased outlays for refundable credits and do not incorporate any impact that the policy options might have on gross domestic product or other broad measures of economic activity.

* = less than 0.1 percentage point.

- This option would extend the provisions of the Economic Growth and Tax Relief Reconciliation Act of 2001 and the Jobs and Growth Tax Relief Reconciliation Act of 2003 that are scheduled to expire at the end of 2010; extend the higher exemption amounts from the individual alternative minimum tax that were in effect in 2009 (adjusted for inflation) for 2010 and subsequent years; and reinstate the estate tax—which expired completely in 2010—for 2011 and subsequent years at the rates in effect in 2009 and with the exemption amounts (adjusted for inflation) that applied in that year.
- This option is the same as the full extension, except that certain provisions would expire that would otherwise have applied to married couples with income of \$250,000 or more and single taxpayers with income of \$200,000 or more. Those provisions include the lower tax rates in the top two income tax brackets, the lower 15 percent tax rates on capital gains and dividends, and the elimination of the phaseout of itemized deductions and personal exemptions.
- This option would make the same changes as the full extension, but through 2012 rather than permanently.
- This option would make the same changes as the partial extension, but through 2012 rather than permanently.

According to CBO's estimates based on preliminary information provided by the staff of the Joint Committee on Taxation, a full extension of the 2001 and 2003 tax cuts—including indexing the alternative minimum tax for inflation and making various other changes—would reduce federal revenues as a share of GDP by 1.2 percent in 2011 and 1.7 percent in 2012 compared with the amounts projected under current law. A partial extension of those tax cuts—in particular, an extension of all provisions except some that apply to married couples with income of \$250,000 or more and single taxpayers with income of \$200,000 or more—would reduce revenues by about one-quarter to one-fifth less, amounting to 0.9 percent of GDP in 2011 and 1.4 percent in 2012. If the extension of the tax provisions continued through 2020, the full extension would reduce revenues by 2.1 percent of GDP in that year, and the partial extension would reduce them by 1.6 percent of GDP.

These estimates do not incorporate the impact that the policy options would have on economic activity. Each of the four options examined would increase economic activity during the next two years—but they would also increase federal budget deficits and would probably reduce national income relative to what would otherwise occur by 2020 and in subsequent years.¹ ◆

1. For an analysis quantifying the macroeconomic impact of the four tax policy options, see Statement of Douglas W. Elmendorf, Director, Congressional Budget Office, before the Senate Committee on the Budget, *The Economic Outlook and Fiscal Policy Choices* (September 28, 2010).



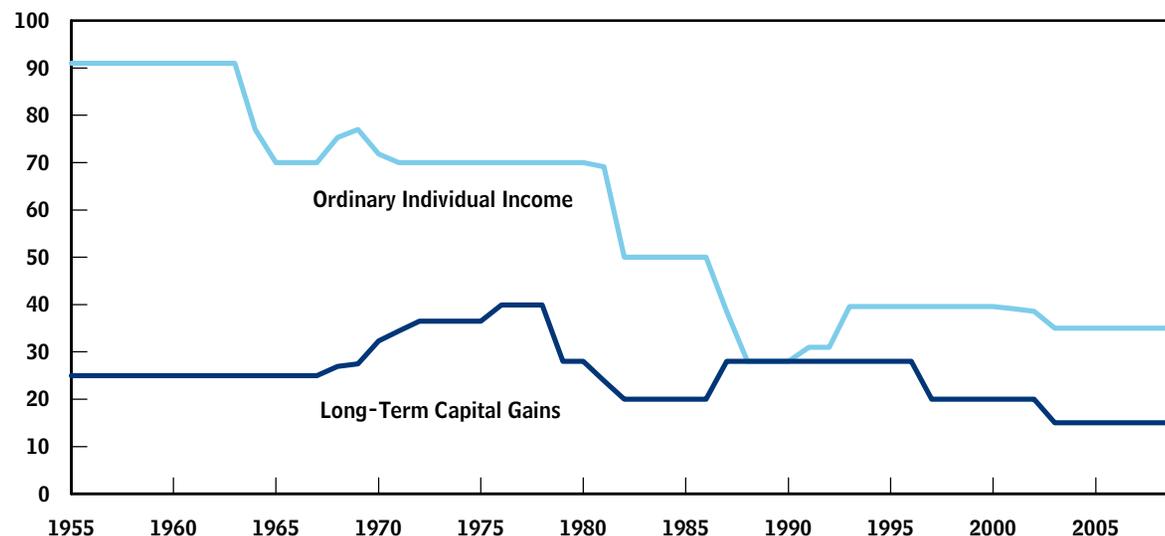
**How the Tax System Affects Economic Activity:
Marginal Tax Rates and Tax Expenditures**



Exhibit 4.

Maximum Statutory Marginal Income Tax Rates on Ordinary Individual Income and Long-Term Capital Gains, 1955 to 2009

(Percent)



Sources: Department of the Treasury, Internal Revenue Service and Office of Tax Analysis.

The top statutory marginal income tax rate (the tax rate that applies to the top income tax bracket) has ranged from 28 percent to 39.6 percent in the past 20 years, well below the rates in effect in the preceding decades. In the late 1950s and early 1960s, for example, the top rate was 91 percent. Over time, the maximum rate has applied at different levels of income, and the share of the population affected has varied. For example, the top rate of 70 percent in 1968 applied to roughly 6,000 returns (0.01 percent of the returns filed), whereas the top rate of 35 percent in 2008 applied to almost 1 million returns (0.6 percent of the returns filed).

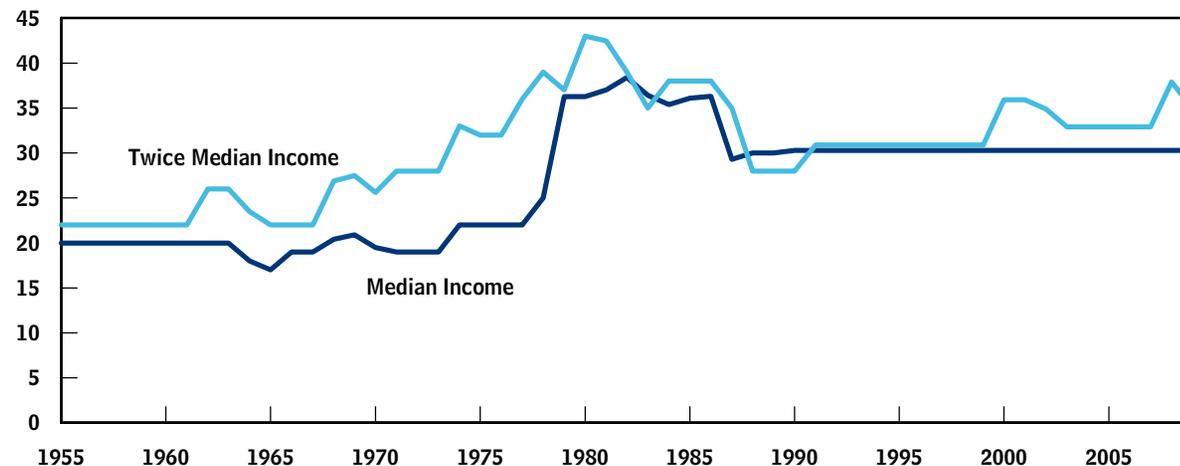
Different rate schedules have applied to some types of income at different points in time. Since 1955, the maximum rate for long-term capital gains has been lower than that for ordinary income in most years. Other sources of income have been subject to alternative rate schedules for shorter periods. For example, between 1971 and 1986, a lower maximum tax rate applied to earned income, and between 2003 and 2010, dividend income was taxed at a lower maximum rate.

With the expiration of the 2001 and 2003 tax cuts, the top income tax rate for most types of income is scheduled to rise from 35 percent to 39.6 percent in 2011, the top rate on long-term capital gains is scheduled to rise from 15 percent to 20 percent, and dividends will no longer be taxed at a lower maximum rate but will be subject to the same rates as most other income. ♦

Exhibit 5.

Marginal Tax Rates (Income and Payroll) on Earnings for a Family of Four with a Single Earner, 1955 to 2009

(Percent)



Sources: Department of the Treasury, Office of Tax Analysis, and Congressional Budget Office.

The marginal tax rate on earnings is the amount of federal income and payroll taxes that would be collected on an additional dollar earned. For a representative family of four with median income (approximately \$75,000 in 2010) and a single earner, the marginal rate has been about 30 percent since 1988, reflecting a marginal income tax rate of 15 percent and a combined payroll tax rate paid by employees and employers that is also about 15 percent. During that time, the marginal tax rate on earnings for a similar family but with twice the median income has fluctuated, averaging about 32 percent—29 percentage points from the income tax and 3 percentage points from the payroll tax (the lower payroll tax rate results from the family’s single earner exceeding the maximum taxable threshold for the Social Security payroll tax—\$106,800 in 2010). Marginal tax rates for families with less than the median income can vary greatly depending on the characteristics of the family; marginal rates for such families can be higher than that for a median-income family because certain tax credits apply fully for lower-income families but diminish with additional earnings.

The marginal tax rate on earnings for a household with median income climbed sharply in the 1970s primarily because of rising payroll tax rates and inflation, which pushed families into higher income tax brackets. The marginal rate fell when income tax rates were reduced in the Tax Reform Act of 1986 and has stayed at about the same level since then, in part because individual income tax brackets were indexed for inflation starting in 1985. Other estimates, not shown, imply that the marginal tax rate on capital income is currently at the low end of its range during the past half-century. ♦

Exhibit 6.**Estimates of Effective Federal Marginal Tax Rates on Capital and Labor Income Under Current Law and Four Tax Policy Options in 2011, 2012, and 2020**

(Percent)

	Capital Income ^a			Labor Income ^b		
	2011	2012	2020	2011	2012	2020
Effective Federal Marginal Tax Rates						
Rates Under Current Law	15.1	15.5	16.3	30.6	31.1	33.8
Percentage-Point Change from Current Law						
Full Extension, Permanent	-2.0	-2.1	-2.3	-2.6	-2.7	-3.0
Partial Extension, Permanent	-0.4	-0.4	-0.4	-2.0	-2.0	-2.1
Full Extension, Through 2012	-2.0	-2.1	0	-2.6	-2.7	0
Partial Extension, Through 2012	-0.4	-0.4	0	-2.0	-2.0	0

Source: Congressional Budget Office.

Note: For definitions of the tax policy options examined, see the notes to Exhibit 3.

- a. The rate applicable to an additional dollar of capital income subject to federal individual income and corporate income taxes.
- b. The rate applicable to an additional dollar of labor income subject to federal individual income and payroll taxes.

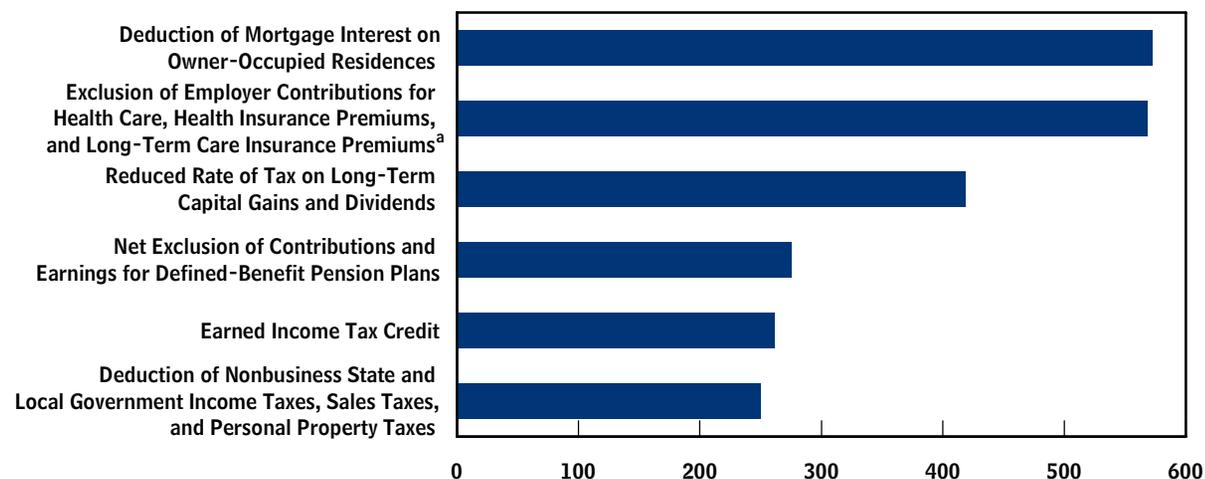
Marginal tax rates can be calculated not just for typical households but also for all capital and labor income in the economy; those rates are often termed “effective” marginal rates because they account for the different tax rates that apply to different types of capital and labor income and for other features of the tax code that can cause marginal rates to be higher or lower than the stated rates in the law. For example, under the corporate income tax, income from some types of investment, such as debt-financed corporate investment and investment in noncorporate businesses, is not taxed. In addition, under the individual income tax, income from some types of investment, such as owner-occupied housing, is not taxed, while income from other types of investment, such as capital gains and dividend income, is taxed at preferential rates. Moreover, some labor income is paid in the form of fringe benefits that are not subject to the individual income tax.

The effective marginal tax rate on capital income is less than the effective marginal tax rate on labor income because a significant portion of capital income is not taxed or is taxed at reduced rates. Under current law, by CBO’s estimates, the effective marginal tax rate on capital income, including both the individual income tax and the corporate income tax, will rise from about 13 percent in 2010 to about 15 percent in 2011, as certain tax provisions expire. Under current law, the effective marginal tax rate on labor income, including both the individual income tax and payroll taxes, will rise from about 28 percent in 2010 to about 31 percent in 2011, CBO estimates. ♦

Exhibit 7.

Projections of Forgone Revenues from Selected Individual Income Tax Expenditures, Fiscal Years 2009 to 2013

(Billions of dollars)



Source: Staff of the Joint Committee on Taxation.

a. Estimate does not reflect enactment of the Patient Protection and Affordable Care Act (Public Law 111-148) and the Health Care Education Reconciliation Act of 2010 (P.L. 111-152).

Tax expenditures are the revenues that are forgone because of special exclusions, exemptions or deductions from gross income, special credits, preferential tax rates, or deferrals of tax liabilities aimed at subsidizing certain activities. Tax expenditures reduce the income on which taxes are levied. Therefore, to raise the same amount of revenues, tax rates must be higher than they would be without tax expenditures. Such higher tax rates tend to discourage work and saving.

The two largest tax expenditures—the deduction of mortgage interest on owner-occupied residences and the exclusion of employers’ contributions for health insurance premiums—encourage people to buy homes and to take out larger mortgages than they might otherwise be able to afford and encourage employers to compensate employees with contributions toward their health insurance and health care. Together those two tax expenditures are projected to result in \$1.1 trillion in forgone revenues over the 2009–2013 period.

Although there are difficulties in adding estimates together and comparing them over time, researchers have estimated that total nonbusiness tax expenditures rose sharply between 1976 and 1985, from 4.2 percent to 6.4 percent of GDP. The amount then dropped relative to GDP between 1985 and 1990 as a result of the Tax Reform Act of 1986 but increased again throughout the 1990s, reaching 6.5 percent of GDP in 2001 before declining again slightly.¹ ♦

1. Those amounts are not shown in Exhibit 7. See Leonard Burman, Eric Toder, and Christopher Geissler, “How Big Are Total Individual Income Tax Expenditures, and Who Benefits from Them?” Discussion Paper No. 31 (Washington, D.C.: Urban-Brookings Tax Policy Center, December 2008); www.taxpolicycenter.org/UploadedPDF/1001234_tax_expenditures.pdf.

Exhibit 8.**Projections of Forgone Revenues from Selected Individual Income Tax Expenditures Related to Housing, Fiscal Years 2009 to 2013**

Tax Expenditure	Percentage of Individual Income Tax Revenues
Deduction for Mortgage Interest on Owner-Occupied Residences	9.3
Deduction for Property Taxes on Real Property	2.0
Exclusion of Capital Gains on Sales of Principal Residences	1.4

Sources: Staff of the Joint Committee on Taxation and Congressional Budget Office.

Homeowners can deduct mortgage interest (up to \$1.1 million in total) and property taxes from their income when they compute their tax liability. Over the five years from 2009 through 2013, the revenues forgone from those two tax expenditures are projected to be 9.3 percent and 2.0 percent of individual income tax revenues, respectively. The deductions are effectively a subsidy for mortgage interest and property taxes for taxpayers who itemize their deductions and own rather than rent their homes. Even among those who are able to claim the deductions, the subsidies are larger for individuals who face higher marginal tax rates.

Homeowners can also exclude from taxation as much as \$250,000 of any capital gain (\$500,000 for a joint return) when they sell their primary residence. The forgone revenues from that tax provision are projected to be 1.4 percent of individual income tax revenues from 2009 through 2013.

The tax code treats investments in owner-occupied housing more favorably than other investments. For example, the owner of a rental house pays taxes on the rental income—net of expenses such as mortgage interest, property taxes, depreciation, and maintenance—and may pay taxes on any capital gain when the house is sold; in contrast, a homeowner who occupies a house, and does not collect any rent, is not required to report the rental value of the home as gross income. Yet the homeowner may still be able to deduct mortgage interest and property taxes and not pay taxes on capital gains when the home is sold. In general, the tax code does not permit deductions for the costs of producing income that is not taxed. ♦

Exhibit 9.**Projections of Forgone Revenues from Selected Individual Income Tax Expenditures Related to Health Insurance and Health Care, Fiscal Years 2009 to 2013**

Tax Expenditure	Percentage of Individual Income Tax Revenues
Exclusion of Employer Contributions for Health Care, Health Insurance Premiums, and Long-Term Care Insurance Premiums	9.2 ^a
Exclusion of Medicare Benefits for Hospital Insurance (Part A)	2.7
Exclusion of Medicare Benefits for Supplemental Medical Insurance (Part B)	1.9
Deduction for Medical and Long-Term Care Expenses	1.2

Sources: Staff of the Joint Committee on Taxation and Congressional Budget Office.

Note: Estimates do not reflect enactment of the Patient Protection and Affordable Care Act (Public Law 111-148) and the Health Care Education Reconciliation Act of 2010 (P.L. 111-152).

- a. Does not include the exclusion of employer and employee contributions for employer-sponsored health insurance from payroll taxes. Those forgone payroll tax revenues have recently been estimated to be about as large as the forgone individual income tax revenues from the exclusion of employer contributions reported here. See Joint Committee on Taxation, Background Materials for Senate Committee on Finance Roundtable on Health Care Financing," JCX-27-09 (May 8, 2009); www.jct.gov/publications.html?func=start-down&id=3557.

Although employer-paid premiums for health insurance and long-term care insurance are part of employees' total compensation (and are deductible by firms as an expense in calculating their corporate income tax liability), they are exempt from the individual income tax and payroll taxes and are thus excluded from employees' taxable income. The forgone revenues from excluding those premiums (and other employers' contributions for health care) are projected to be 9.2 percent of individual income tax revenues from 2009 through 2013; forgone revenues from payroll taxes will be significant during that period as well.

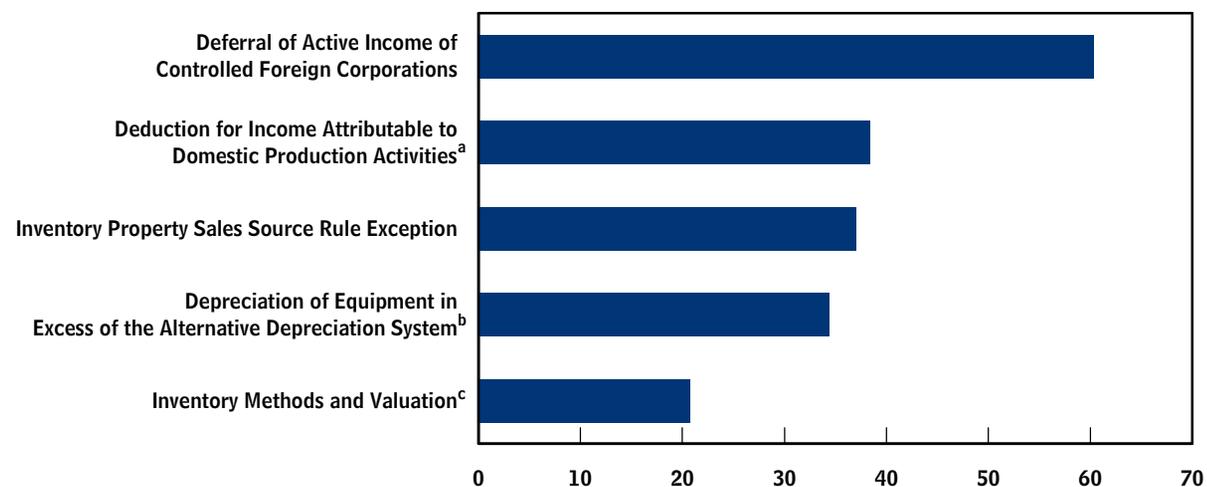
This tax treatment of health insurance has encouraged employers to offer health insurance to their workers and to pay their workers a larger share of their compensation in that form. As a result, people have higher levels of insurance that increase the utilization of health care relative to other forms of consumption; for example, because routine expenses are effectively subsidized, there is an incentive for health insurance plans to cover routine expenses as well as large, unexpected costs, and coverage of routine expenses leads to higher expenses. As with the deductions of mortgage interest and property taxes, the tax-favored treatment of employment-based health insurance represents a subsidy that is larger for individuals who face higher marginal tax rates.

Health care receives favorable tax treatment in other ways. Medicare benefits are excluded from taxable income, and medical expenses and long-term care expenses in excess of a threshold amount can be deducted. ♦

Exhibit 10.

Projections of Forgone Revenues from Selected Corporate Income Tax Expenditures, Fiscal Years 2009 to 2013

(Billions of dollars)



Source: Staff of the Joint Committee on Taxation.

- a. There is an additional \$15 billion of forgone revenues under the individual income tax.
- b. There is an additional \$6 billion of forgone revenues under the individual income tax.
- c. There is an additional \$3 billion of forgone revenues under the individual income tax.

Corporate tax expenditures reduce revenues by much less than individual tax expenditures. The largest corporate tax expenditure—projected to total about \$60 billion over the 2009–2013 period—is for the deferral of taxes on active income of controlled foreign corporations. Although the federal government taxes the income that U.S. businesses earn at home or abroad, income earned by a foreign subsidiary of a U.S. multinational corporation is not subject to tax until it is repatriated to the parent corporation as dividends. The deferral of taxes on income earned abroad, which can last indefinitely, favors foreign investments relative to investments at home, but it may also help U.S. companies compete with foreign corporations in international markets.

The second largest corporate tax expenditure is the deduction for domestic production activities, projected to result in \$38 billion in forgone corporate income tax revenues from 2009 through 2013. U.S. corporations engaged in certain types of domestic production can deduct a percentage of the income earned from those activities (9 percent in most cases) from their taxable income. Lowering taxes on domestic production activities provides an incentive for production at home rather than abroad, but because the deduction does not apply to all domestic production, it favors certain types of domestic production over others. ♦

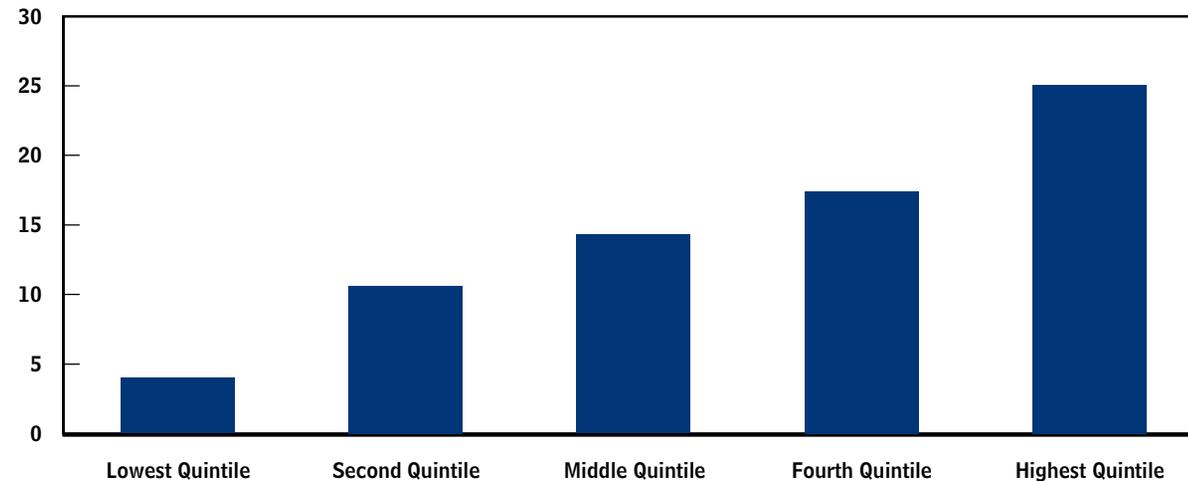


The Tax Burden and Who Bears It



Exhibit 11.**Average Federal Tax Rates, 2007**

(Percent)



Source: Congressional Budget Office.

Note: For information on the calculation of average tax rates, the ranking of households, and the allocation of taxes, see "Notes and Definitions" at the beginning of this document.

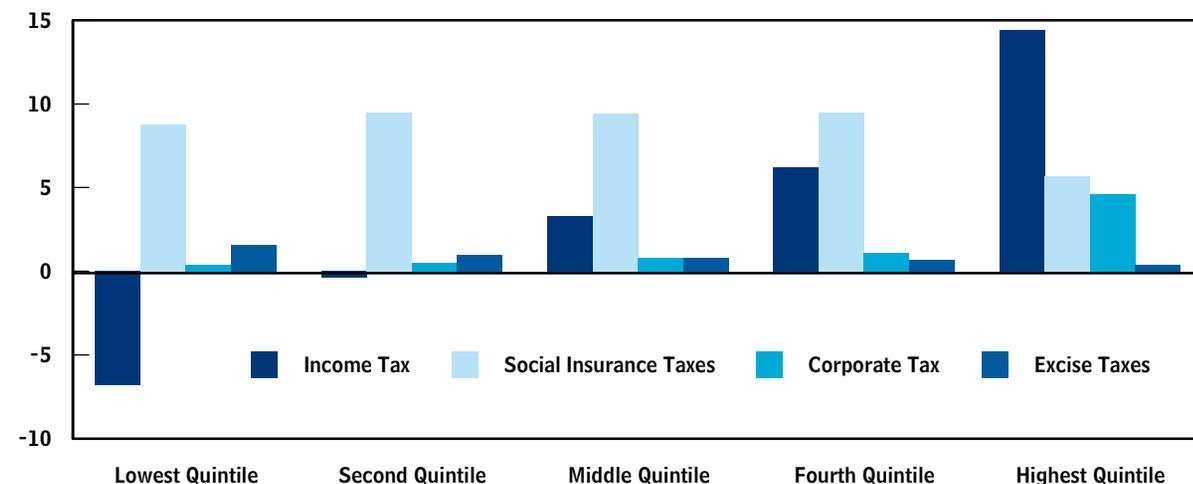
One measure of the tax burden on households is the average tax rate, which equals the taxes paid as a share of income. CBO's estimates of average federal tax rates include not only federal individual income taxes but federal payroll, corporate income, and excise taxes as well. Taxes also impose an additional burden on the economy beyond the taxes paid because they cause taxpayers to alter their economic behavior in ways that generally result in a less efficient allocation of economic resources. That additional burden is not included in the average tax rate measured here.

The overall federal tax system is progressive, which means that average tax rates generally rise with income. In 2007, households in the bottom fifth, or quintile, of the income distribution (with average income of \$18,400, under a broad definition of income) paid about 4 percent of their income in federal taxes, while the middle quintile, with average income of \$64,500, paid 14 percent, and the highest quintile, with average income of \$264,700, paid 25 percent. Average federal tax rates rise within the top quintile: The top 1 percent of households, not shown, faced an average rate of about 30 percent. ♦

Exhibit 12.

Average Federal Tax Rates, by Income Quintile and Tax Source, 2007

(Percent)



Source: Congressional Budget Office.

Note: For information on the calculation of average tax rates, the ranking of households, and the allocation of taxes, see "Notes and Definitions" at the beginning of this document.

Much of the progressivity of the federal tax system derives from the individual income tax, for which average tax rates rise significantly with income. Average social insurance tax rates are about the same for the second, middle, and fourth income quintiles (and slightly lower for the lowest quintile), but fall significantly for the top quintile because earnings above a threshold are not subject to the Social Security payroll tax and because earnings are a smaller portion of total income for that group. Average corporate tax rates also rise with income, with the largest increase applying to the top quintile, and the average excise tax rate falls as income rises.

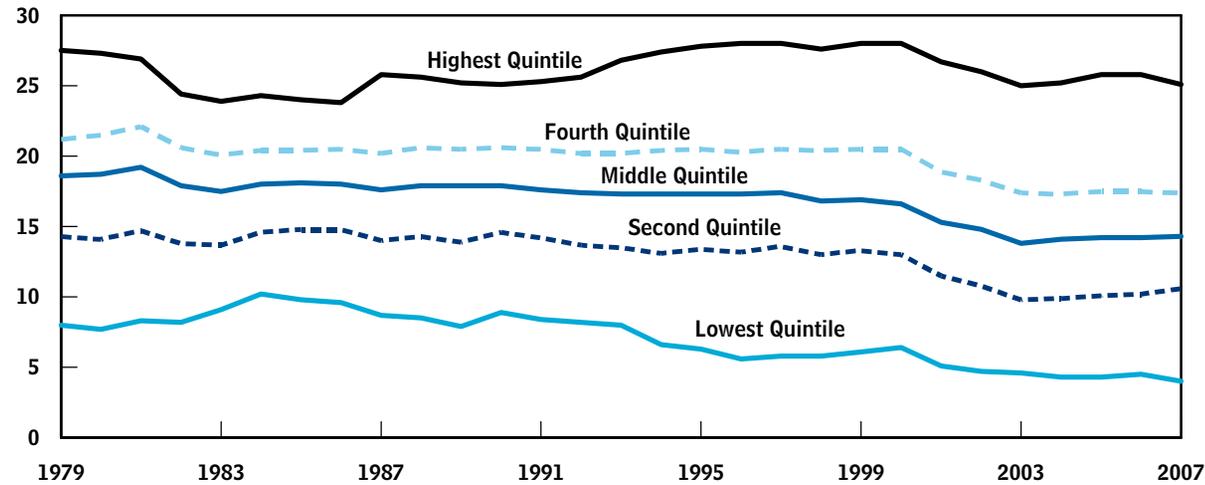
Average social insurance tax rates are higher than the rates for other taxes for all quintiles except the highest, for which the average individual income tax rate is much higher. In other words, on average, people in all quintiles except the highest pay more in payroll taxes (including both the employee's share and the employer's share) than in individual income taxes.

Households bear the burden of corporate income taxes, but the extent to which they bear that burden as corporate shareholders, owners of other types of capital, or workers is not clear. In this analysis, corporate taxes are allocated to households in proportion to their total income from capital. Because higher-income households have a significant share of income from capital, they are estimated to pay a significant portion of the corporate income tax. ♦

Exhibit 13.

Average Federal Tax Rates, by Income Quintile, 1979 to 2007

(Percent)



Source: Congressional Budget Office.

Note: For information on the calculation of average tax rates, the ranking of households, and the allocation of taxes, see "Notes and Definitions" at the beginning of this document.

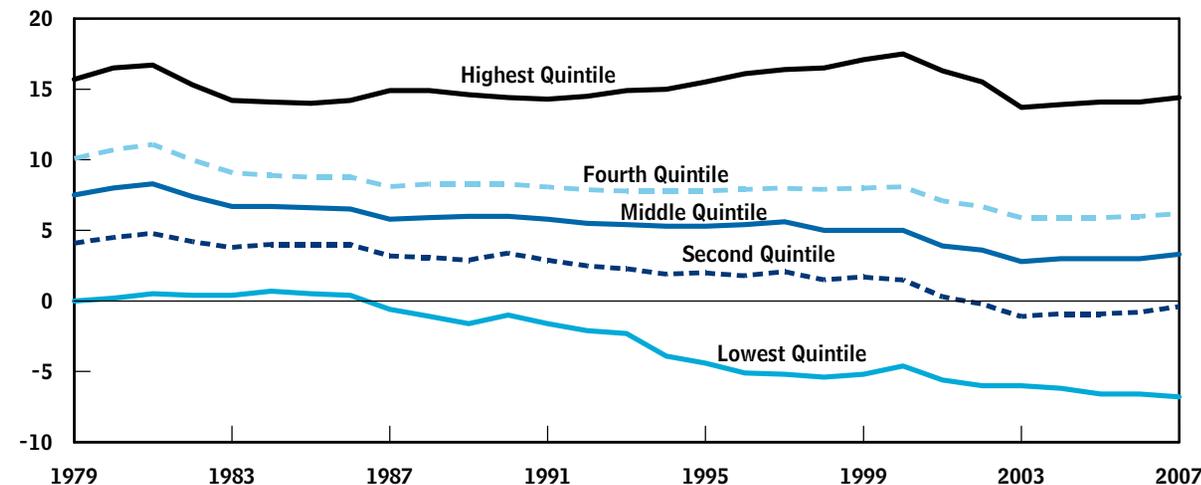
The pattern of average federal tax rates has varied over time. The lowest three income quintiles have seen declines in their average tax rates since the early 1980s. The average tax rate on the fourth quintile changed little over most of the past 30 years, before declining starting about a decade ago. The average tax rate on the top quintile has fluctuated more, with periods of increases and decreases, and was somewhat lower in 2007 than in 1979.

Average federal tax rates on all income quintiles fell noticeably after 2000 as a result of the recession and the tax reductions enacted beginning in 2001. ♦

Exhibit 14.

Average Federal Individual Income Tax Rates, by Income Quintile, 1979 to 2007

(Percent)



Source: Congressional Budget Office.

Note: For information on the calculation of average tax rates, the ranking of households, and the allocation of taxes, see "Notes and Definitions" at the beginning of this document.

As with the average federal tax rates for all taxes, average federal tax rates for the individual income tax have declined for the lowest three income quintiles since the early 1980s. Average individual income tax rates for the fourth quintile and the top quintile have also declined, on balance, over time. The extent of the decrease was greatest for the lowest quintile, for which the rate dropped by nearly 7 percentage points between 1979 and 2007. The large drop in the average individual income tax rate for the lowest quintile after 1990 primarily reflected increases in the earned income tax credit enacted in 1990 and 1993 and the introduction and expansion of the refundable child tax credit after 1997.

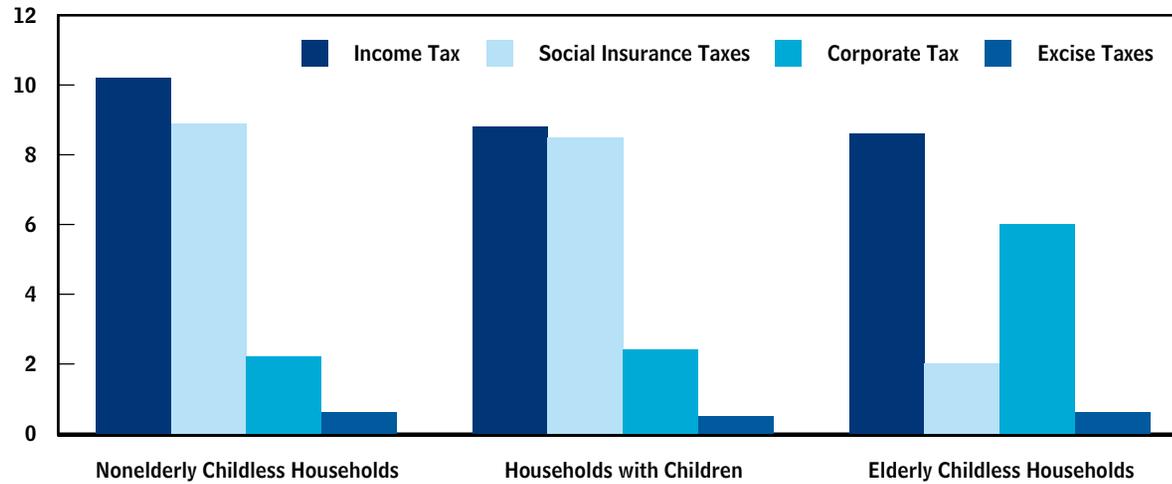
Average tax rates that are less than zero for the bottom two quintiles indicate that, on balance, refundable credits for households in those quintiles exceeded the income taxes they owed before those credits were applied, and thus the households received the excess credits as payments from the Internal Revenue Service.

In 2007, about 35 percent of households did not owe any federal income taxes, although over two-thirds of those households paid federal payroll taxes. About 85 percent of the households that did not pay either income or payroll taxes were elderly households or non-elderly households with income less than \$20,000. ♦

Exhibit 15.

Average Federal Tax Rates, by Household Type and Tax Source, 2007

(Percent)



Source: Congressional Budget Office.

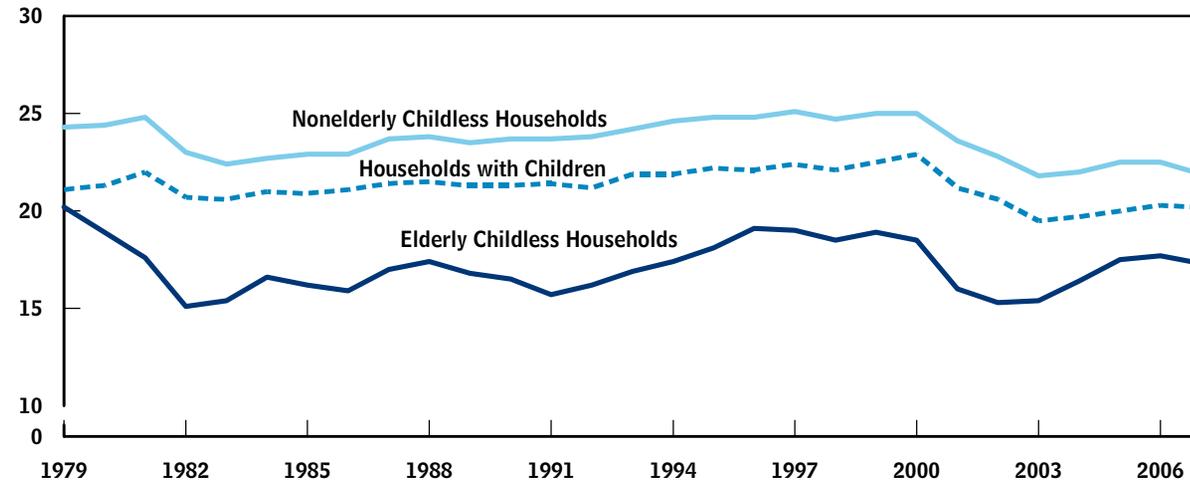
Note: For information on the calculation of average tax rates, the ranking of households, and the allocation of taxes, see "Notes and Definitions" at the beginning of this document.

Average federal tax rates vary among different types of households because of both tax rules and differences in the amount and nature of household income. In particular, elderly childless households (households headed by someone age 65 or older with no household members under age 18) face much lower average payroll tax burdens than others do because labor earnings are a much smaller part of their household income, but they bear a higher average burden from the corporate income tax because a greater share of their income comes from returns on capital. ♦

Exhibit 16.

Average Federal Tax Rates, by Household Type, 1979 to 2007

(Percent)



Source: Congressional Budget Office.

Note: For information on the calculation of average tax rates, the ranking of households, and the allocation of taxes, see "Notes and Definitions" at the beginning of this document.

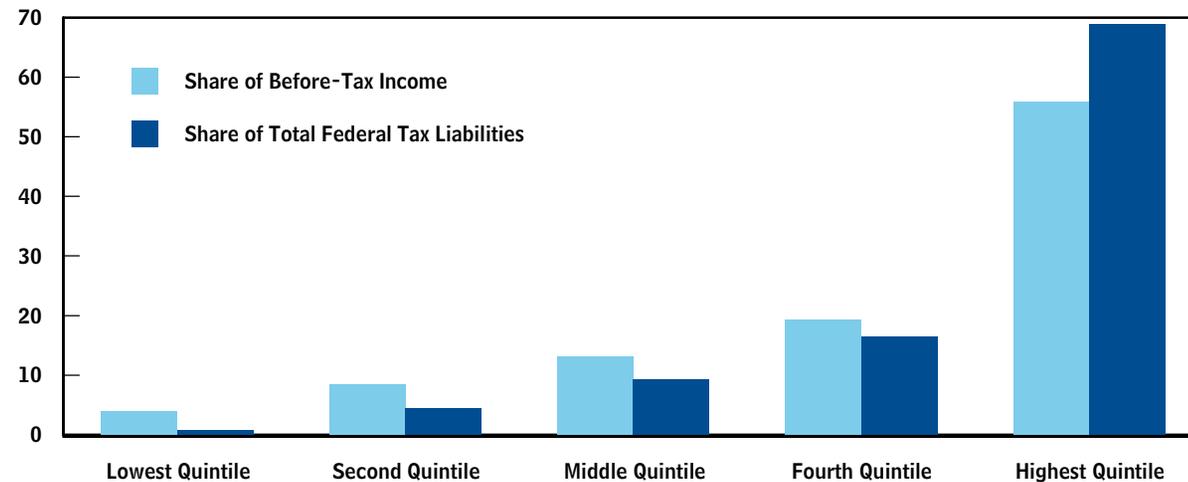
In every year between 1979 and 2007, non-elderly childless households (households headed by someone under age 65 with no household members under age 18) faced the highest average federal tax rates, and elderly childless households faced the lowest average federal tax rates. That difference in tax burden persisted despite a number of changes in tax laws during that period. It reflects both the lower average income for elderly childless households than for other types of households (average tax rates rise with income) and the full or partial exclusion from taxes of Social Security benefits and other income that account for a large share of the total income of elderly households.

Since 1979 the changes in the average federal tax rates paid by households with children (households with at least one household member under age 18) and nonelderly childless households have changed in similar ways; the average rate paid by elderly childless households has shown a different pattern over time.



Exhibit 17.**Shares of Total Before-Tax Income and Total Federal Tax Liabilities, by Income Quintile, 2007**

(Percent)



Source: Congressional Budget Office.

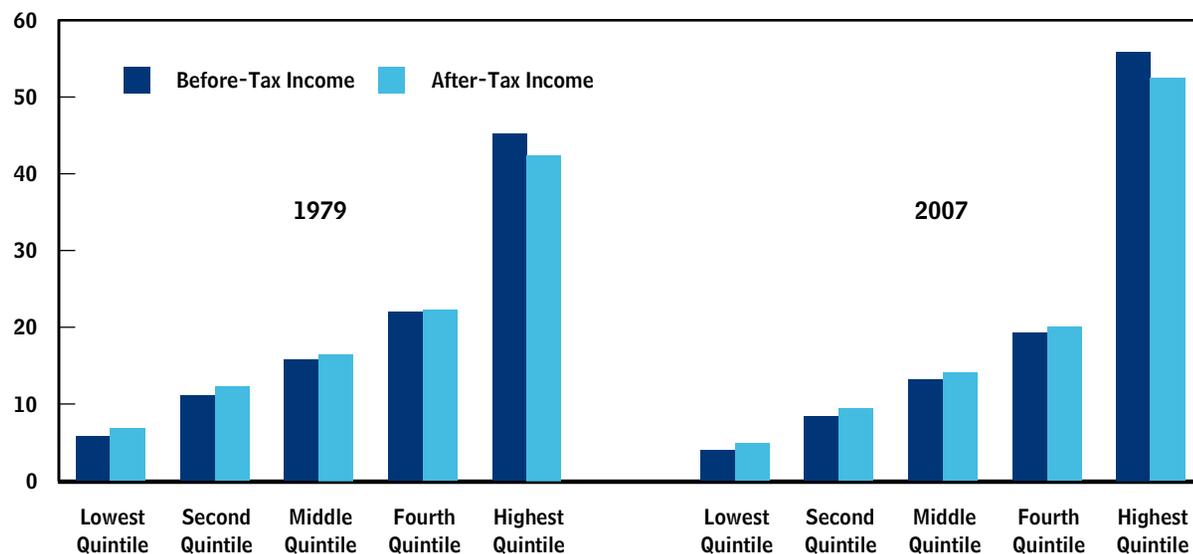
Note: For information on the calculation of average tax rates, the ranking of households, and the allocation of taxes, see "Notes and Definitions" at the beginning of this document.

Another way to describe the distribution of the tax burden is to compare different groups' shares of income before taxes and shares of taxes paid. Higher-income groups earn a disproportionate share of before-tax income; because average federal tax rates rise with income, they pay an even larger share of federal taxes. In 2007, households in the highest quintile earned 55 percent of before-tax income and paid almost 70 percent of federal taxes; for all other quintiles, their share of federal taxes was less than their share of income. The bottom quintile earned 4 percent of income and paid less than 1 percent of federal taxes, while the middle quintile earned 13 percent of income and paid 9 percent of federal taxes. The top 1 percent of households, not shown, earned 19 percent of income and paid 28 percent of federal taxes. ♦

Exhibit 18.

Shares of Before-Tax and After-Tax Income, by Income Quintile, 1979 and 2007

(Percent)



Source: Congressional Budget Office.

After-tax income was distributed more evenly than before-tax income in both 1979 and 2007 because average federal tax rates rise with income. However, the impact of federal taxes on the distribution of income was relatively small in both years. For example, households in the top two quintiles had 68 percent of before-tax income and 65 percent of after-tax income in 1979; those shares were 75 percent and 73 percent, respectively, in 2007.

Between 1979 and 2007, the share of before-tax income fell for each income group except for the highest quintile, whose share increased from 46 percent to 56 percent. (The share of before-tax income for the 1 percent of households with the highest income increased from 9 percent to 19 percent.) Almost all of the changes in the after-tax distribution of income between 1979 and 2007 can be attributed to the changes in the distribution of before-tax income; changes in average tax rates had little impact on the distribution of after-tax income over that period. ♦